CHAPTER 15, ARTICLE 4.5, SECTION 64439

ARTICLE 4.5. TRIHALOMETHANES

Section 64439. Requirements.

(a) Community water systems shall comply with the National Interim Primary Drinking Water Regulations for the control of Trihalomethanes in Drinking Water, Sections 141.2(p), (q), (r), (s) and (t), 141.6, 141.12 and 141.30 of Title 40, Code of Federal Regulations, as published in the November 29, 1979, Federal Register (Vol. 44, No. 231) and revised in the March 11, 1980, Federal Register (Vol. 45, No. 49).

(b) Approved surface water systems serving 10,000 or more persons shall comply with this subsection through December 31, 2001, and chapter 15.5 thereafter.

(c) Groundwater systems serving 10,000 or more persons shall comply with this section through December 31, 2003, and chapter 15.5 thereafter.

NOTE:
Authority Cited: Sections 208 and 4026, Health and Safety Code.
Reference: Section 208 and 4026, Health and Safety Code

Section 64439.1 Interim Public Notification Requirements for Trihalomethanes.

(a) This section applies to community water systems that serve a population of 10,000 or more persons and add disinfectant to the water in any part of the drinking water treatment process. For approved surface water systems, this section applies to the monitoring period from January 1, 2002, through September 30, 2002. For ground water only systems, this section applies to the monitoring period from January 1, 2004, through September 30, 2004.

(b) If the running annual average of quarterly averages of TTHM samples collected pursuant to sections 64439 and 64534.5(a), and reported pursuant to section 64537.5, is greater than 0.10 mg/L, the system shall notify the Department when submitting the report pursuant to section 64537.5 and comply with the following:

(1) Give notice to the public in accordance with the following methods which are described in section 64464.1:

(A) By Method 2, and by Method 4 or 5; or

(B) If the Department finds that there is no daily newspaper of general circulation serving the area served by the system, by Method 3 and by Method 4 or 5.

(2) Use the following language in the notice to the public:

"The California Department of Health Services (DHS) sets drinking water standards and requires the disinfection of drinking water. However, when used in the treatment of drinking water, disinfectants react with naturally-occurring organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). DHS has determined that a number of DBPs are a health concern at certain levels of exposure. Certain DBPs, including some trihalomethanes (THMs), have been shown to cause cancer in laboratory animals. Exposure to certain DBPs may produce similar effects in people. DHS has set standards to limit exposure to THMs."

(3) Investigate the causes of the exceedance and determine necessary actions to ensure compliance with the 0.080 mg/L MCL for TTHMs. This information shall be reported to the Department within 30 days of exceeding the TTHM action level.

NOTE:
Authority Cited: Section 116375, Health and Safety Code.
Reference: Sections 116275-116750, Health and Safety Code.

CHAPTER 15, ARTICLE 1, SECTION 64400

ARTICLE 1. DEFINITIONS

Section 64400 Acute Risk.

"Acute risk" means the potential for a contaminant or an excessive disinfectant dose to cause acute health effects, i.e., death, damage or illness, as a result of a single period of exposure of a duration measured in seconds, minutes, hours, or days.

NOTE:
Authority Cited: Sections 208, ~~4023.3~~116375, and ~~4028~~116450, Health and Safety Code.
Reference: Sections ~~4010-4039.6~~116275-116750, Health and Safety Code

CHAPTER 15, ARTICLE 19, SECTION 64464.3

Section 64464.3. Public Notification - Water Quality Failure.

(a) Unless otherwise directed by the Department, the water supplier shall notify the Department and the persons served by the water system whenever any of the following occurs:

(1) The water supplied to the consumers exceeds the bacteriological quality limits specified in Section 64426.1, or exceeds the MCLs for inorganic chemicals, nitrate, turbidity, ~~trihalomethanes~~ disinfection byproducts, radioactivity, or organic chemicals as specified in Sections 64431, 64439, 64433.5, 64441, 64443, and 64444, or exceeds the MRDLs for disinfectants in Section 64533.10.

NOTE:
Authority Cited: Sections 208, ~~4023.3~~116375, and ~~4028~~116450, Health and Safety Code.
Reference: Sections ~~4010-4039.6~~116275-116750, Health and Safety Code

CHAPTER 15, ARTICLE 19, SECTION 64464.6

Section 64464.6. Public Notification - Procedural Failure.

(a) Unless otherwise directed by the Department, the water supplier shall notify the Department and the persons served by the water system whenever any of the following occurs:

(1) The water supplier fails to take and report the required number of bacteriological samples in accordance with an approved sample siting plan pursuant to Section 64422 and as specified in Sections 64423 and 64424 or fails to take and report the required number of inorganic chemical, organic chemical, ~~or~~ radiological, disinfectant , disinfection byproduct, or disinfection byproduct precursor samples, as specified in Sections 64432, 64432.1, 64432.2, 64439, 64441, 64443, 64445, 64445.1, 64445.2, ~~and~~ 64450.1, and 64534 through 64536.15.

NOTE:
Authority Cited: Sections 208, ~~4027~~116425, and ~~4028~~116450, Health and Safety Code.
Reference: Sections ~~4010-4039.6~~116275-116750, Health and Safety Code

CHAPTER 15, ARTICLE 19, SECTION 64465

Section 64465. Notification of an Acute Health Risk.

When the Department determines that the presence of any contaminant or any excessive disinfectant dose occurs at a level posing an acute risk to human health pursuant to Section 64400, the water supplier of a community water system shall give notice to persons served by the system by Section 64464.1(a) - Method 1.

NOTE:
Authority Cited: Sections 208, ~~4023.3~~116375, and ~~4028~~116450, Health and Safety Code.
Reference: Sections ~~4010-4039.6~~116275-116750, Health and Safety Code

CHAPTER 15, ARTICLE 19, SECTION 64468.5

Section 64468.5 Health Effects Language – Disinfectants and Disinfection Byproducts.

Pursuant to Section 64467, the explanation of potential adverse health effects for disinfectants and disinfection byproducts shall include the following mandatory language for the designated contaminants:

(a) Chlorine: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chlorine is a health concern at certain levels of exposure. Chlorine is added to drinking water as a disinfectant to kill bacteria and other disease-causing microorganisms and is also added to provide continuous disinfection throughout the distribution system. Disinfection is required for surface water systems. However, at high doses for extended periods of time, chlorine has been shown to affect blood and the liver in laboratory animals. DHS has set a drinking water standard for chlorine to protect against the risk of these adverse effects. Drinking water which meets this DHS standard is associated with little to none of this risk and should be considered safe with respect to chlorine."

(b) Chloramines: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chloramines are a health concern at certain levels of exposure. Chloramines are added to drinking water as a disinfectant to kill bacteria and other disease-causing microorganisms and are also added to provide continuous disinfection throughout the distribution system. Disinfection is required for surface water systems. However, at high doses for extended periods of time, chloramines have been shown to affect blood and the liver in laboratory animals. DHS has set a drinking water standard for chloramines to protect against the risk of these adverse effects. Drinking water which meets this DHS standard is associated with little to none of this risk and should be considered safe with respect to chloramines."

(c) Chlorine Dioxide: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chlorine dioxide is a health concern at certain levels of exposure. Chlorine dioxide is used in water treatment to kill bacteria and other disease-causing microorganisms and can be used to control tastes and odors. Disinfection is required for surface water systems. However, at high doses, chlorine dioxide-treated drinking water has been shown to affect blood in laboratory animals. Also, high levels of chlorine dioxide given to laboratory animals in drinking water have been shown to cause neurological effects on the developing nervous system. These neurodevelopmental effects may occur as a result of a short-term excessive chlorine dioxide exposure. To protect against such potentially harmful exposures, DHS requires chlorine dioxide monitoring at the treatment plant, where disinfection occurs, and at representative points in the distribution system serving water users. DHS has set a drinking water standard for chlorine dioxide to protect against the risk of these adverse effects."
[In addition to this paragraph, systems shall include either paragraph (1) or (2) of this section. Systems with a violation at the treatment plant, but not in the distribution system, are required to use the language in paragraph (1) of this section and treat the violation as a nonacute violation. Systems with a violation in the distribution system are required to use the language in paragraph (2) of this section and treat the violation as an acute violation.]

(1) "The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, and do not include violations within the distribution system serving users of this water supply. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to present consumers."

(2) "The chlorine dioxide violations reported today include exceedances of the DHS standard within the distribution system serving water users. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including pregnant women, infants, and young children, may be especially susceptible to adverse effects of excessive exposure to chlorine dioxide-treated water. The purpose of this notice is to advise that such persons should consider reducing their risk of adverse effects from these chlorine dioxide violations by seeking alternate sources of water for human consumption until such exceedances are rectified. Local and Department health authorities are the best sources for information concerning alternate drinking water."

(d) Disinfection Byproducts and Treatment technique for DBPs: "The California Department of Health Services (DHS) sets drinking water standards and requires the disinfection of drinking water. However, when used in the treatment of drinking water, disinfectants react with naturally-occurring organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). DHS has determined that a number of DBPs are a health concern at certain levels of exposure. Certain DBPs, including some trihalomethanes (THMs) and some haloacetic acids (HAAs), have been shown to cause cancer in laboratory animals. Other DBPs have been shown to affect the liver and the nervous system, and cause reproductive or developmental effects in laboratory animals. Exposure to certain DBPs may produce similar effects in people. DHS has set standards to limit exposure to THMs, HAAs, and other DBPs."

(e) Bromate: "The California Department of Health Services (DHS) sets drinking water standards and has determined that bromate is a health concern at certain levels of exposure. Bromate is formed as a byproduct of ozone disinfection of drinking water. Ozone reacts with naturally occurring bromide in the water to form bromate. Bromate has been shown to produce cancer in rats. DHS has set a drinking water standard to limit exposure to bromate."

(f) Chlorite: "The California Department of Health Services (DHS) sets drinking water standards and has determined that chlorite is a health concern at certain levels of exposure. Chlorite is formed from the breakdown of chlorine dioxide, a drinking water disinfectant. Chlorite in drinking water has been shown to affect blood and the developing nervous system. DHS has set a drinking water standard for chlorite to protect against these effects. Drinking water which meets this standard is associated with little to none of these risks and should be considered safe with respect to chlorite."

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116450, and 116460, Health and Safety Code

CHAPTER 15.5 DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS

ARTICLE 1. GENERAL REQUIREMENTS AND DEFINITIONS

Section 64530. General Requirements.

(a) Community water systems and nontransient, noncommunity water systems that treat their water with a chemical disinfectant in any part of the treatment process or which provide water that contains a chemical disinfectant shall modify their treatment practices to comply with the MCLs and MRDLs in sections 64533.5 and 64533.10 respectively, and shall meet the treatment technique requirements for disinfection byproduct precursors in section 64536.15. Approved surface water systems serving 10,000 or more persons shall comply with this chapter beginning January 1, 2002. Approved surface water systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water shall comply with this chapter beginning January 1, 2004.

(b) Transient noncommunity approved surface water systems serving 10,000 or more persons and using chlorine dioxide shall comply with the requirements for chlorine dioxide in this chapter beginning January 1, 2002. Approved surface water systems serving fewer than 10,000 persons and using chlorine dioxide and systems using only ground water not under the direct influence of surface water and using chlorine dioxide shall comply with the requirements for chlorine dioxide in this chapter beginning January 1, 2004.

(c) Each community water system and nontransient noncommunity water system regulated under this chapter shall be operated by qualified personnel who meet the requirements specified by the Department and are included in the Department register of qualified operators.

(d) Failure to comply with the requirements of this chapter, unless otherwise specified, including requirements established by the Department pursuant to these provisions, shall constitute a violation of the primary drinking water standards for disinfectants and disinfection byproducts.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Section 116350, Health and Safety Code

Section 64531. Definitions Governing Terms Used in this Chapter.

The definitions in sections 64400 through 64402.20 of chapter 15 and sections 64651.10 through 64651.93 of chapter 17 shall govern the interpretation of terms used in this chapter.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.5 Disinfection Byproduct Precursor (DBPP).

"Disinfection byproduct precursor" (DBPP) means a naturally occurring chemical in the source water that reacts with a disinfectant to form a disinfection byproduct.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.10. Enhanced Coagulation.

"Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.15. Enhanced Softening.

"Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.20. GAC10.

"GAC10' means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.25. Haloacetic acids (five) (HAA5).

"Haloacetic acids (five) (HAA5)" means the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

NOTE:

Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.30. Maximum residual disinfectant level (MRDL).

"Maximum residual disinfectant level (MRDL)" means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.35. SUVA.

"SUVA" means Specific Ultraviolet Absorption at 254 nanometers (nm), an indicator of the humic content of a water. It is calculated by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV_{254}) (in m^{-1}) by its concentration of dissolved organic carbon (DOC) (in mg/L).

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

Section 64531.40. Total Organic Carbon (TOC).

"Total Organic Carbon (TOC)" means total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116275 and 116350, Health and Safety Code

ARTICLE 2. MAXIMUM CONTAMINANT LEVELS FOR DISINFECTION BYPRODUCTS AND MAXIMUM RESIDUAL DISINFECTANT LEVELS

Section 64533.5. Maximum Contaminant Levels for Disinfection Byproducts.

(a) The primary MCLs for the disinfection byproducts shown in table 64533.5-A shall not be exceeded in drinking water supplied to the public.

Table 64533.5-A
Maximum Contaminant Levels

Disinfection byproducts

DISINFECTION BYPRODUCT	*Maximum Contaminant Level, mg/L*
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0

(b) A system installing GAC, membranes, or other technology to limit disinfectant byproducts to comply with this section may apply to the Department for an extension of up to 24 months, but not to exceed beyond December 31, 2003. Applications for extensions shall be received by the Department prior to January 1, 2002. If granted an extension, a system shall meet the schedule and interim treatment and monitoring requirements set forth by the Department.

(c) The best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for disinfection byproducts are identified in table 64533.5-B.

Table 64533.5-B
Best Available Technology
Disinfection byproducts

Disinfection byproduct	BEST AVAILABLE TECHNOLOGY
TTHM and HAA5	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant
Bromate	Control of ozone treatment process to reduce production of bromate
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116365, and 116370, Health and Safety Code

Section 64533.10. Maximum Residual Disinfectant Levels.

(a) The MRDLs for the disinfectants shown in table 64533.10-A shall not be exceeded in drinking water supplied to the public. Subject to Department approval, systems may increase residual disinfectant levels in the distribution system of chlorine or chloramines (but not chlorine

dioxide) to a level and for a time necessary to protect public health, to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run-off events, source water contamination events, or cross-connection events.

Table 64533.10-A
Maximum residual disinfectant level

Disinfectant Residual	*MRDL (mg/L)*
Chlorine	4.0 (as Cl_2)
Chloramines	4.0 (as Cl_2)
Chlorine dioxide	0.8 (as ClO_2)

(b) The best technologies, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels in this section are control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116365, and 116370, Health and Safety Code

ARTICLE 3. MONITORING REQUIREMENTS.

Section 64534. General Requirements.

(a) Required analyses shall be performed by laboratories approved to perform those analyses by the Department, pursuant to section 116390, Health and Safety Code. Analyses shall be made in accordance with EPA approved methods as prescribed in Section 141.131 of Title 40, Code of Federal Regulations, as published in the December 16, 1998, Federal Register (Vol. 63, No. 241) and revised in the April 14, 2000, Federal Register (Vol. 65, No. 73).

(b) Sample collection shall be performed by a water treatment operator certified by the Department pursuant to section 106875 of the Health and Safety Code or by personnel trained by a certified laboratory or certified operator to collect samples and/or perform these tests.

(c) Systems shall take all samples during normal operating conditions.

(d) Systems may consider multiple wells drawing water from a single aquifer as one treatment plant for determining the minimum number of TTHM and HAA5 samples required, with Department approval.

(e) Systems may qualify for reduced monitoring with Department approval, based on current system source status. Systems may use only data collected under the provisions of this chapter or 40 CFR Subpart M (Information Collection Rule) to qualify for reduced monitoring.

(f) Failure to monitor in accordance with the monitoring plan, as required under section 64534.25 and approved by the Department, is a monitoring violation.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, and 116555, Health and Safety Code

Section 64534.5. Disinfection Byproducts Monitoring.

(a) Community and nontransient noncommunity water systems shall monitor for TTHMs and HAA5 at the frequencies and locations indicated in table 64534.5-A.

Table 64534.5-A
Routine monitoring frequency for TTHM and HAA5

TYPE OF SYSTEM	PERSONS SERVED	*Minimum monitoring frequency*	SAMPLE LOCATION IN THE DISTRIBUTION SYSTEM
Approved surface water systems	≥10,000	Four samples per quarter per treatment plant	At least 25 percent of all samples collected each quarter at locations representing maximum residence time. Remaining samples taken at locations representative of at least average residence time in the distribution system and representing the entire distribution system, taking into account number of persons served, different sources of water, and different treatment methods[1].
	500 - 9,999	One sample per quarter per treatment plant	Locations representing maximum residence time[1].
	< 500	One sample per year per treatment	Locations representing maximum residence time[1]. If the sample (or average of annual samples, if more

		plant during month of warmest water temperature	than one sample is taken) exceeds MCL, system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until system meets reduced monitoring criteria in paragraph (3) of this subsection.
Systems using only ground water not under direct influence of surface water and using chemical disinfectant	≥10,000	One sample per quarter per treatment plant	Locations representing maximum residence time[1].
	<10,000	One sample per year per treatment plant during month of warmest water temperature	Locations representing maximum residence time[1]. If the sample (or average of annual samples, if more than one sample is taken) exceeds MCL, system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until system meets reduced monitoring criteria in paragraph (3) of this subsection.

[1] If a system elects to sample more frequently than the minimum required, at least 25 percent of all samples collected each quarter (including those taken in excess of the required frequency) shall be taken at locations that represent the maximum residence time of the water in the distribution system. The remaining samples shall be taken at locations representative of at least average residence time in the distribution system.

(1) Systems may reduce monitoring, except as otherwise provided, in accordance with table 64534.5-B, subject to Department approval and based on current system source status.

Table 64534.5-B

Reduced monitoring frequency for TTHM and HAA5

If you are a(n)..	*serving...*	*the system may reduce monitoring if it has monitored at least one year and...*	*to this level*
Approved surface water system which has a source water TOC[1] level, before any treatment, ≤ 4.0 mg/L	≥10,000	TTHM[1] ≤0.040 mg/L and HAA5[1] ≤0.030mg/L	One sample per treatment plant per quarter at distribution system location reflecting maximum residence time.
	500-9,999	TTHM[1] ≤0.040 mg/L and HAA5[1] ≤0.030mg/L	One sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature.
System using only ground water not under direct influence of surface water and using chemical disinfectant	≥10,000	TTHM[1] ≤0.040 mg/L and HAA5[1] ≤0.030mg/L	One sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature.
	<10,000	TTHM[1] ≤0.040 mg/L and HAA5[1] ≤0.030mg/L for two consecutive years OR TTHM[1] ≤0.020 mg/L and HAA5[1] ≤0.015mg/L for one year	One sample per treatment plant per three-year monitoring cycle at distribution system location reflecting maximum residence time during month of warmest water temperature, with the three-year cycle beginning on January 1 following the quarter in which system qualifies for reduced monitoring.

[1]TOC, TTHM, and HAA5 values based on annual averages

(2) Systems on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year (for systems which monitor quarterly) or the result of the sample (for systems which monitor no more frequently than annually) is no more than 0.060 mg/L and 0.045 mg/L for TTHMs and HAA5, respectively. Systems that do not meet these levels shall resume monitoring at the frequency in table 64534.5-A (sample location column) in the quarter immediately following the quarter in which the system exceeds 0.060 mg/L for TTHMs or 0.045 mg/L for HAA5. For systems using only ground water not under the direct influence of surface water and serving fewer than 10,000 persons, if either the TTHM annual average is >0.080 mg/L or the HAA5 annual average is >0.060 mg/L, the system shall go to increased monitoring identified in paragraph 64534.5(a) (sample location column) in the quarter immediately following the quarter in which the system exceeds 0.080 mg/L or 0.060 mg/L for TTHMs and HAA5, respectively.

(3) Systems on increased monitoring may return to routine monitoring if TTHM annual average is ≤0.040 mg/L and HAA5 annual average is ≤0.030 mg/L.

(b) Community and nontransient noncommunity water systems using chlorine dioxide shall conduct monitoring for chlorite as follows:

(1) Systems shall take daily samples at the entrance to the distribution system. For any daily sample that exceeds the chlorite MCL, the system shall take three additional chlorite distribution system samples the following day (in addition to the daily sample required at the entrance to the distribution system) at these locations: As close to the first customer as possible, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system.

(2) Systems shall take a three-sample set each month in the distribution system. The system shall take one sample at each of the following locations: As close to the first customer as possible, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system. Any additional routine sampling shall be conducted in the same manner (as three-sample sets, at the specified locations). The system may use the results of additional monitoring conducted under paragraph (1) to meet the monitoring requirement in this paragraph.

(3) Monthly chlorite monitoring in the distribution system pursuant to paragraph (2) may be reduced to one three-sample set per quarter after one year of monitoring during which no individual chlorite sample taken in the distribution system has exceeded the chlorite MCL and the system has not been required to conduct additional monitoring under paragraph (1). Reduced monitoring is subject to Department approval based on current system source status. The system may remain on the reduced monitoring schedule until either any of the three individual chlorite samples taken quarterly in the distribution system under paragraph (2) exceeds the chlorite MCL or the system is required to conduct additional monitoring under paragraph (1), at which time the system shall revert to routine monitoring.

(c) Community and nontransient noncommunity systems using ozone shall monitor for bromate as follows:

(1) Systems shall take one sample per month for each treatment plant in the system using ozone. Samples shall be taken at the entrance to the distribution system while the ozonation system is operating under normal conditions.

(2) Systems may reduce monitoring from monthly to once per quarter, if the system demonstrates to the Department that the average source water bromide concentration is less than 0.05 mg/L based upon representative monthly bromide measurements for one year. If at any time the running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based upon representative monthly measurements, the system shall resume routine monitoring pursuant to paragraph (1).

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, and 116555, Health and Safety Code

Section 64534.10. Disinfectant Residuals Monitoring.

(a) Community and nontransient noncommunity water systems that use chlorine or chloramines shall measure the residual disinfectant levels at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in section 64421. Approved surface water systems may use the results of residual disinfectant concentration sampling conducted under section 64656, in lieu of taking separate samples.

(b) Community, nontransient noncommunity, and transient noncommunity water systems that use chlorine dioxide shall monitor for chlorine dioxide daily at the entrance to the distribution system. For any daily sample that exceeds the MRDL, the system shall take three chlorine dioxide distribution system samples the following day as follows:

(1) If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfection addition points after the entrance to the distribution system (i.e., no booster chlorination), the system shall take three samples as close to the first customer as possible, at intervals of at least six hours.

(2) If chlorine is used to maintain a disinfectant residual in the distribution system and there are one or more disinfection addition points after the entrance to the distribution system (i.e., booster chlorination), the system shall take one sample at each of the following locations: As close to the first customer as possible, in a location representative of average residence time, and as close to the end of the distribution system as possible (reflecting maximum residence time in the distribution system).

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, and 116555, Health and Safety Code

Section 64534.15. Disinfection Byproduct Precursors (DBPP) Monitoring.

(a) Approved surface water systems which use conventional filtration treatment (as defined in section 64651.23) shall take one paired TOC sample (source water and treated water) and one source water alkalinity sample per month per treatment plant at a time representative of normal operating conditions and influent water quality. TOC and alkalinity in the source water shall be monitored prior to any treatment and at the same time as TOC monitoring in the treated water. TOC in the treated water shall be monitored no later than the point of combined filter effluent turbidity monitoring and shall be representative of the treated water.

(b) Approved surface water systems with an average treated water TOC of less than 2.0 mg/L for two consecutive years, or less than 1.0 mg/L for one year, may reduce monitoring for both TOC and alkalinity to one paired sample and one source water alkalinity sample per plant per quarter. The system shall revert to routine monitoring in the first month following the quarter that the annual average treated water TOC is equal to or greater than 2.0 mg/L.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, and 116555, Health and Safety Code

Section 64534.20. Reduced Bromate Monitoring.

Systems required to analyze for bromate may reduce bromate monitoring from monthly to once per quarter, if the system demonstrates to the Department that the average source water bromide concentration is less than 0.05 mg/L based upon representative monthly measurements for one year. The system shall continue bromide monitoring to remain on reduced bromate monitoring.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, and 116555, Health and Safety Code

Section 64534.25. Monitoring Plans.

Each system required to monitor under this chapter shall develop and implement a monitoring plan. The system shall maintain the plan and make it available for inspection by the Department and the general public no later than 30 days following the applicable compliance date in sections 64530(a) or (b). All approved surface water systems serving more than 3300 persons shall submit a copy of the monitoring plan to the Department no later than the date of the

first report required under section 64537. The Department may also require the plan to be submitted by any other system. After review, the Department may require changes in any plan elements. As a minimum, the plan shall include the following elements:

(1) Specific locations and schedules for collecting samples for any parameters included in this chapter.

(2) How the system will calculate compliance with MCLs, MRDLs, and treatment techniques.

(3) If the system is approved for monitoring as a consecutive system, or if it will be providing water to a consecutive system, the sampling plan shall reflect the entire distribution system.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116530, and 116555, Health and Safety Code

ARTICLE 4 COMPLIANCE REQUIREMENTS

Section 64535. General Requirements.

(a) Where compliance is based on a running annual average of monthly or quarterly samples or averages and the system fails to monitor for TTHM, HAA5, bromate, or for chlorine or chloramine residuals, this failure to monitor will be treated as a monitoring violation for the entire period covered by the annual average.

(b) All samples taken and analyzed under the provisions of this chapter shall be included in determining compliance, even if that number is greater than the minimum required.

(c) If, during the first year of monitoring under sections 64534 through 64534.25, any individual quarter's average will cause the running annual average of that system to exceed the MCL, the system is out of compliance at the end of that quarter.

(d) For violations of the MCLs in section 64533.5 or MRDLs in section 64533.10 that may pose an acute risk to human health, notification shall be pursuant to section 64465.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116450, and 116460, Health and Safety Code

Section 64535.5. Disinfection Byproducts Compliance.

(a) Compliance for TTHMs and HAA5 MCLs is as follows:

(1) For systems monitoring quarterly, compliance with MCLs in section 64533.5 shall be based on a running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected pursuant to section 64534.5(a).

(2) For systems monitoring less frequently than quarterly, systems demonstrate MCL compliance if the average of samples taken that year under the provisions of section 64534.5(a) does not exceed the MCLs in section 64533.5(a). If the average of these samples exceeds the MCL, the system shall increase monitoring to once per quarter per treatment plant. Compliance with the MCL shall then be determined by the average of the sample that triggered the quarterly monitoring and the following three quarters of monitoring, unless the result of fewer than four quarters of monitoring will cause the running annual average to exceed the MCL, in which case the system is in violation at the end of that quarter.

(3) If the running annual arithmetic average of quarterly averages covering any four-quarter period exceeds the MCL, the system is in violation of the MCL and must notify the public pursuant to sections 64464.3 and 64467, including language in section 64468.5, in addition to reporting to the Department pursuant to sections 64537 through 64537.15.

(4) If a public water system fails to complete four consecutive quarters of monitoring, compliance with the MCL for the last four-quarter compliance period must be based on an average of the available data.

(b) Compliance for bromate shall be based on a running annual arithmetic average, computed quarterly, of monthly samples (or, for months in which the system takes more than one sample, the average of all samples taken during the month) collected by the system as prescribed by paragraph 64534.5(c). If the average of samples covering any consecutive four-quarter period exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to sections 64464.3 and 64467, including language in section 64468.5, in addition to reporting to the Department pursuant to sections 64537 through 64537.15. If a public water system fails to complete 12 consecutive months' monitoring, compliance with the MCL for the last four-quarter compliance period shall be based on an average of the available data.

(c) Compliance for chlorite shall be based on an arithmetic average of each three-sample set taken in the distribution system as prescribed by paragraphs 64534.1(b)(2) and (3). If the arithmetic average of any three-sample set exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to sections 64464.3 and 64467, including language in section 64468.5, in addition to reporting to the Department pursuant to sections 64537 through 64537.15.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116450, and 116460, Health and Safety Code

Section 64535.10. Disinfectant Residuals Compliance.

(a) Compliance for chlorine and chloramines MRDLs is as follows:

(1) Compliance shall be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the system under subsection 64534.10(a). If the average covering any consecutive four-quarter period exceeds the MRDL, the system is in violation of the MRDL and shall notify the the public pursuant to sections 64464.3 and 64467, including language in section 64468.5, in addition to reporting to the Department pursuant to sections 64537 through 64537.15.

(2) In cases where systems switch between the use of chlorine and chloramines for residual disinfection during the year, compliance shall be determined by including together all monitoring results of both chlorine and chloramines in calculating compliance. Reports submitted pursuant to sections 64537 through 64537.15 shall clearly indicate which residual disinfectant was analyzed for each sample.

(b) Compliance for chlorine dioxide shall be based on consecutive daily samples collected by the system under subsection 64534.10(b).

(1) If any daily sample taken at the entrance to the distribution system exceeds the MRDL, and on the following day either the system fails to take the required distribution system samples or one (or more) of the three samples taken in the distribution system exceed the MRDL, the system is in violation of the MRDL and shall take immediate corrective action to lower the level of chlorine dioxide below the MRDL. The system shall notify the Department within 48 hours of the determination, in addition to reporting to the Department pursuant to sections 64537 through 64537.15, and notify the public pursuant to the procedures for acute health risks in section 64465, including language in subsection 64468.5(c).

(2) If any two consecutive daily samples taken at the entrance to the distribution system exceed the MRDL and all distribution system samples taken are below the MRDL, the system is in violation of the MRDL and shall take corrective action to lower the level of chlorine dioxide below the MRDL at the point of sampling. The system shall notify the public pursuant to the procedures for nonacute health risks in section 64464.3, including language in subsection 64468.5(c), in addition to reporting to the Department pursuant to sections 64537 through 64537.15. Failure to monitor at the entrance to the distribution system the day following an exceedance of the chlorine dioxide MRDL at this site is also an MRDL violation and the system shall notify the public pursuant to the procedures for nonacute health risks in section 64464.3, including language in subsection 64468.5(c), in addition to reporting to the Department pursuant to sections 64537 through 64537.15.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116450, and 116460, Health and Safety Code

Section 64535.15. Disinfection Byproduct Precursors (DBPP) Compliance.

(a) Compliance shall be determined pursuant to section 64536.10.

(b) One year prior to the compliance date for the system, it may begin monitoring to determine whether it can meet the Step 1 TOC removals in section 64536.5(a). This monitoring is not required and failure to monitor during this period is not a violation. However, if a system does not monitor during this period, and then determines in the first year after the compliance date that it is not able to meet the Step 1 TOC removal requirements and therefore needs to apply for Step 2 alternate TOC removal requirements, the system is not eligible for Step 2 removal requirements and is in violation. Systems may apply for Step 2 removal requirements any time after the compliance date. For systems required to meet Step 1 TOC removals, if the value calculated under 64536.10(a)(4) is less than 1.00, the system is in violation of the treatment technique requirements and must notify the public pursuant to sections 64464.3 and 64467, including language in section 64468.5, in addition to reporting to the Department pursuant to sections 64537 through 64537.15.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116450, and 116460, Health and Safety Code

ARTICLE 5 TREATMENT TECHNIQUE FOR CONTROL OF DISINFECTION BYPRODUCT (DBP) PRECURSORS.

Section 64536. Applicability.

(a) Approved surface water systems using conventional filtration treatment (as defined in section 64651.23) shall operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels specified in section 64536.5 unless the system meets at least one of the compliance criteria listed in subsection (b) or (c).

(b) Approved surface water systems using conventional filtration treatment may use the alternative compliance criteria in paragraphs (1) through (6) to comply with this article in lieu of complying with section 64536.5. Systems shall still comply with monitoring requirements in section 64534.15.

(1) The system's source water TOC level is less than 2.0 mg/L, calculated quarterly as a running annual average.

(2) The system's treated water TOC level is less than 2.0 mg/L, calculated quarterly as a running annual average.

(3) The system's source water TOC level is less than 4.0 mg/L, calculated quarterly as a running annual average; the source water alkalinity is greater than 60 mg/L (as $CaCO_3$), calculated quarterly as a running annual average; and either

(A) The TTHM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L, respectively; or

(B) Prior to the applicable compliance date in subsection 64530(a) or (b), the system has made an irrevocable financial commitment to use technologies that will limit the levels of TTHMs and HAA5 to no more than 0.040 mg/L and 0.030 mg/L, respectively. Systems shall submit evidence of the commitment, in addition to a schedule containing milestones and periodic progress reports for installation and operation of appropriate technologies, to the Department for approval not later than the applicable compliance date in subsection 64530(a) or (b). These technologies shall be installed and operating not later than June 30, 2005.

(4) The TTHM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L, respectively, and the system uses only chlorine for primary disinfection and maintenance of a residual in the distribution system.

(5) The system's source water SUVA, prior to any treatment and measured monthly, is less than or equal to 2.0 L/mg-m, calculated quarterly as a running annual average.

(6) The system's finished water SUVA, measured monthly, is less than or equal to 2.0 L/mg-m, calculated quarterly as a running annual average.

(c) Systems practicing enhanced softening that cannot achieve the TOC removals required by subsection 64536.5(a) may comply with the alternative criteria in paragraphs (1) and (2) in lieu of complying with section 64536.5. Systems shall still comply with the monitoring requirements in section 64534.15.

(1) Softening that results in lowering the treated water alkalinity to less than 60 mg/L (as $CaCO_3$), measured monthly and calculated quarterly as a running annual average.

(2) Softening that results in removing at least 10 mg/L of magnesium hardness (as $CaCO_3$), measured monthly and calculated quarterly as an annual running average.

NOTE:
Authority Cited: Sections 116325, 116370 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116555, Health and Safety Code

Section 64536.5. Enhanced Coagulation and Enhanced Softening Performance Requirements.

(a) Systems shall achieve the Step 1 percent reduction of TOC specified in table 64536.5-A between the source water and the combined filter effluent, unless the Department approves a system's request for alternate minimum TOC removal (Step 2) requirements under subsection (b). Systems practicing softening shall meet the Step 1 TOC removals in the far-right column (Source water alkalinity >120 mg/L) of table 64536.5-A for the specified source water TOC:

Table 64536.5-A

Step 1 required removal of TOC by enhanced coagulation and enhanced softening for systems using conventional treatment

	Required Removal of TOC		
Source-Water TOC, mg/L	*Source-Water Alkalinity, mg/L as $CaCO_3$*		
	0-60	>60-120	>120
>2.0-4.0	35.0%	25.0%	15.0%
>4.0-8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

(b) Approved surface water systems using conventional treatment that cannot achieve the Step 1 TOC removals required by subsection (a) due to water quality parameters or operational constraints shall apply to the Department, within three months of failure to achieve the TOC removals required by subsection (a), for approval of Step 2 removal requirements. If the Department approves the Step 2 removal requirements pursuant to subsection(c), the Department may make those requirements retroactive for the purposes of determining compliance. Until the Department approves the Step 2 removal requirements, the system shall meet the Step 1 TOC removals contained in subsection (a).

(c) Applications made to the Department by enhanced coagulation systems for approval of Step 2 removal requirements under subsection (b) shall include, as a minimum, results of bench- or pilot-scale testing conducted under paragraph (1) of this subsection and used to determine the alternate enhanced coagulation level.

(1) Alternate enhanced coagulation level is defined as coagulation at a coagulant dose and pH as determined by the method described in paragraphs (1) through (5) such that an incremental addition of 10 mg/L of alum (or equivalent amount of ferric salt) results in a TOC removal of ≤ 0.3 mg/L. The percent removal of TOC at this point on the "TOC removal versus coagulant dose" curve is then defined as the minimum TOC removal required for the system. Once approved by the Department, this minimum requirement supersedes the minimum TOC removal required by subsection 64536.5(a). This requirement shall be effective until such time as the Department approves a new value based on the results of a new bench- and pilot-scale test.

(2) Bench- or pilot-scale testing of enhanced coagulation shall be conducted by using representative water samples and adding 10 mg/L increments of alum (or equivalent

amounts of ferric salt) until the pH is reduced to a level less than or equal to the enhanced coagulation Step 2 target pH shown in table 64536.5-B.

Table 64536.5-B
Enhanced coagulation Step 2 target pH

Alkalinity *mg/L as $CaCO_3$*	TARGET PH
0-60	5.5
>60-120	6.3
>120-240	7.0
>240	7.5

(3) For waters with alkalinities of less than 60 mg/L for which the addition of small amounts of alum or equivalent addition of iron coagulant drives the pH below 5.5 before significant TOC removal occurs, the system shall add necessary chemicals to maintain the pH between 5.3 and 5.7 in samples until the TOC removal of 0.3 mg/L per 10 mg/L alum added (or equivalent addition of iron coagulant) is reached.

(4) The system may operate at any coagulant dose or pH necessary (consistent with other primary drinking water standards) to achieve the minimum TOC percent removal approved under subsection (b).

(5) If the TOC removal is consistently less than 0.3 mg/L of TOC per 10 mg/L of incremental alum dose (at all dosages of alum (or equivalent addition of iron coagulant), the water is deemed to contain TOC not amenable to enhanced coagulation. The system may then apply to the Department for a waiver of enhanced coagulation requirements.

NOTE:
Authority Cited: Sections 116325, 116370 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116555, Health and Safety Code

Section 64536.10. Compliance Calculations.

(a) Systems not identified in subsections 64536(b) or (c) shall comply with requirements contained in subsection 64536.5(a) or 64536.5(b) and shall calculate compliance quarterly, beginning after the system has collected 12 months of data, by determining an annual average using the following method:

(1) Determine actual monthly TOC percent removal, equal to:
(1 - (treated water TOC/source water TOC)) x 100.

(2) Determine the required monthly TOC percent removal (from either table 64536.5-A or from subsection 64536.5(b).

(3) Divide the value in paragraph (1) by the value in paragraph (2).

(4) Add together the results of paragraph (3) for the last 12 months and divide by 12.

(5) If the value calculated in paragraph (4) is less than 1.00, the system is not in compliance with the TOC percent removal requirements.

(b) Systems may use the provisions in paragraphs (1) through (6) in lieu of the calculations in subsection (a) to determine compliance with TOC percent removal requirements. In any month that one or more of the conditions of paragraphs (1) through (6) are met, the system may assign a monthly value of 1.0 (in lieu of the value calculated in paragraph (a)(3)) when calculating compliance under the provisions of subsection (a).

(1) The system's source water TOC level, prior to any treatment, is less than 2.0 mg/L.

(2) The system's treated water TOC level is less than 2.0 mg/L.

(3) The system's source water SUVA, prior to any treatment, is less than or equal to 2.0 L/mg-m.

(4) The system's finished water SUVA is less than or equal to 2.0 L/mg-m.

(5) A system practicing softening removes at least 10 mg/L of magnesium hardness (as $CaCO_3$).

(6) A system practicing enhanced softening lowers alkalinity below 60 mg/L (as $CaCO_3$).

(c) Approved surface water systems using conventional treatment may also comply with the requirements of this article by meeting the criteria in paragraphs 64536(b) or (c).

NOTE:
Authority Cited: Sections 116325, 116370 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116555, Health and Safety Code

Section 64536.15. Treatment Techniques for DBP Precursor Control.

For systems using conventional treatment, enhanced coagulation or enhanced softening is identified as a treatment technique to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems.

NOTE:
Authority Cited: Sections 116325, 116370 and 116375, Health and Safety Code.
Reference: Section 116350, Health and Safety Code

ARTICLE 6 REPORTING AND RECORDKEEPING REQUIREMENTS

Section 64537. General Requirements.

Systems required to sample quarterly or more frequently shall report to the Department within 10 days after the end of each quarter in which samples were collected, according to paragraph 64451(c), notwithstanding the provisions of paragraphs 64451(a) and (b). Systems required to sample less frequently than quarterly shall report to the Department within 10 days after the end of each monitoring period in which samples were collected.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116530, and 116555, Health and Safety Code

Section 64537.5. Disinfection byproducts reporting

Systems shall report the information specified in Table 64537.5-A.

Table 64537.5-A
Disinfection byproducts reporting

If you are a system monitoring under the requirements of section 64534.5 for...		*you shall report...*
TTHM and HAA5	(a) on a quarterly or more frequent basis	(1) The number of samples taken during the last quarter. (2) The location, date, and result of each sample taken during the last quarter. (3) The arithmetic average of all samples taken in the last quarter. (4) The annual arithmetic average of the quarterly arithmetic averages of this section for the last four quarters. (5) Whether, based on 64535.5(a), the MCL was violated.

	(b) less frequently than quarterly (but at least annually)	(1) The number of samples taken during the last year. (2) The location, date, and result of each sample taken during the last monitoring period. (3) The arithmetic average of all samples taken over the last year. (4) Whether, based on 64535.5(a), the MCL was violated.
	(c) less frequently than annually	(1) The location, date, and result of the last sample taken. (2) Whether, based on 64535.5(a), the MCL was violated.
Chlorite		(1) The number of samples taken each month for the last 3 months. (2) The location, date, and result of each sample taken during the last quarter. (3) For each month in the reporting period, the arithmetic average of all samples taken in the month. (4) Whether, based on 64535.5(c), the MCL was violated, and in which month it was violated.
Bromate		(1) The number of samples taken during the last quarter. (2) The location, date, and result of each sample taken during the last quarter. (3) The arithmetic average of the monthly arithmetic averages of all samples taken in the last year. (4) Whether, based on 64535.5(b), the MCL was violated.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116530, and 116555, Health and Safety Code

Section 64537.10. Disinfectants Reporting.

Systems shall report the information specified in Table 64537.10-A.

Table 64537.10-A
Disinfectants reporting

If you are a system monitoring under the requirements of section 64534.10 for...	*you shall report...*
Chlorine or chloramines	(1) The number of samples taken during each month of the last quarter. (2) The monthly arithmetic average of all samples taken in each month for the last 12 months. (3) The arithmetic average of all monthly averages for the last 12 months. (4) Whether, based on 64535.10(a), the MRDL was violated.
Chlorine dioxide	(1) The dates, results, and locations of samples taken during the last quarter. (2) Whether, based on 64535.10(b), the MRDL was violated. (3) Whether the MRDL was violated in any two consecutive daily samples and whether the resulting violation was acute or nonacute.

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116530, and 116555, Health and Safety Code

Section 64537.15. Disinfection Byproduct Precursors and Enhanced Coagulation or Enhanced Softening Reporting.

Systems shall report the information specified in Table 64537.15-A.

Table 64537.15-A

Disinfection byproduct precursors and
enhanced coagulation or enhanced softening reporting

If you are a system monitoring monthly or quarterly for TOC under the requirements of section 64534.15 and ...	*you shall report...*
Required to meet the enhanced coagulation or enhanced softening requirements in section 64536(b) or (c)	(1) The number of paired (source water and treated water) samples taken during the last quarter. (2) The location, date, and result of each paired sample and associated alkalinity taken during the last quarter. (3) For each month in the reporting period that paired samples were taken, the arithmetic average of the percent reduction of TOC for each paired sample and the required TOC percent removal. (4) Calculations for determining compliance with the TOC percent removal requirements, as provided in section 64536.10(a). (5) Whether the system is in compliance with the enhanced coagulation or enhanced softening percent removal requirements in section 64536.5 for the last four quarters.

Meeting one or more of the alternative compliance criteria in section 64536(b) or (c)	(1) The alternative compliance criterion that the system is using. (2) The number of paired samples taken during the last quarter. (3) The location, date, and result of each paired sample and associated alkalinity taken during the last quarter. (4) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water TOC for systems meeting a criterion in sections 64536(b)(1) or (3) or of treated water TOC for systems meeting the criterion in section 64536(b)(2). (5) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water SUVA for systems meeting the criterion in section 64536(b)(5) or of treated water SUVA for systems meeting the criterion in section 64536(b)(6). (6) The running annual average of source water alkalinity for systems meeting the criterion in section 64536(b)(3) and of treated water alkalinity for systems meeting the criterion in section 64536(c)(1). (7) The running annual average for both TTHM and HAA5 for systems meeting the criterion in section 64536(b)(3) or (4). (8) The running annual average of the amount of magnesium hardness removal (as $CaCO_3$, in mg/L) for systems meeting the criterion in section 64536(c)(2). (9) Whether the system is in compliance with the particular alternative compliance criterion in section 64536(b) or (c).

NOTE:
Authority Cited: Sections 116325 and 116375, Health and Safety Code.
Reference: Sections 116350, 116385, 116530, and 116555, Health and Safety Code